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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/457,208	12/07/1999	MARUTHI BHASKAR	CISCP127	7417

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EXAMINER	
SHAH, CHIRAG G	

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/457,208	BHASKAR, MARUTHI	
	Examiner	Art Unit	
	Chirag G Shah	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23,27 and 28* is/are rejected.

7)☒ Claim(s) *24-26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 7-11, 12, and 17-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar (U.S. Patent No. 5,996,021) in view of Sitaraman (U.S. Patent No. 6,442,165).

Referring to claims 1, 2, 11, 12, 21, Civanlar discloses in figure 3, columns 5, 6 and respective portions of the specification of a plurality of ingress routers, a plurality of egress router that comprises receiving a plurality of packets into a selected ingress router, each packet is transmitted to a particular destination. Civanlar also discloses that port id maybe selected to enable load balancing. Civanlar further teaches that the destination is a selected on of the egress routers in claim 1 and respective portions of the specification. Civanlar fails to teach of metering a load value for each service class and the particular destination of at least one of the packets and periodically transmitting one or more tickets to the destination to indicate the load value for each of the one or more service classes. Sitaraman teaches of load balancing between service components. Sitaraman discloses in column 2 lines 34 to 55, column 4 and in figure 2 and respective portions of the specification of metering a load value (parameter tracker) for each service class to the destination and periodically transmitting one or more tickets to the destination. Therefore, it would have been obvious to one of ordinary skill in the art to modify

the teachings of Civanlar to include the teachings of Sitaraman regarding metering a load value and transmitting one or more tickets in order to provide load information for each class so that resources may be more efficiently and reliably allocated to each class.

Referring to claims 7-10 and 17-20, Civanlar teaches in figure 3, columns 5, 6 and respective portions of the specification of a plurality of ingress routers, a plurality of egress router that comprises receiving a plurality of packets into a selected ingress router, each packet is transmitted to a particular destination. Civanlar fails to teach of transmitting one or more ticket for load balancing and dynamically allocate resources based on the current load of each class and assure forward routing and differentiated services is performed by the core router. Sitaraman teaches in column 2 lines 33-55 and figure 2, 3a, 3b and respective portions of the specification that one or more tickets are only transmitted for a particular class when the load value has changed for such service class and one or more tickets are transmitted after a predetermined amount of time. Sitaraman also teaches of a load balancer in column 4 that is able decide which of the service components will receive a service based on the load-balancing algorithm. Thus, allowing router to dynamically allocate resources based on the current load of each class and assure forward routing and differentiated services is performed by the core router. Therefore, it would have been obvious to one or ordinary skill in the art to modify the teachings of Civanlar to include the teachings of Sitaraman so resources may efficiently, reliably and dynamically be allocated to each class.

3. Claims 3-6 and 13-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar in view of Sitaraman as applied to claims 1, 2, 7-11, 12, and 17-21 above, and further in view of Mitra (U.S. Patent No. 6,331,986).

Referring to claims 3-6 and 13-16, Civanlar in view of Sitaraman teaches of a method for providing load information having a plurality of ingress, egress and core routers by calculating one or more tickets between at least two service classes. Civanlar in view of Sitaraman fails to teach that the tickets indicate a total number of streams for each or for a particular class that is being transmitted to the destination and each ticket indicated a single stream for a particular class that is being transmitted to the (same) destination. Mitra discloses that columns 7 and 8 teaches of supporting traffic in plural classes of service and states that the link capacity and the traffic intensity of each stream is admitted to the network and offered to a route. Thus, for load balancing each ticket indicates a stream for a particular class to be transmitted to the same or varying destination. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Civanlar in view of Sitaraman to include the disclosed information as set forth by Mitra in order to determine service-route traffic intensity and stream traffic intensity to obtain optimal load balancing of streams to its destination.

4. Claims 22, 23, 27 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Mitra (U.S. Patent No. 6,331,986) in view of Sitaraman (U.S. Patent No. 6,442,165).

Referring to claims 22, 23, 27, and 28, Mitra discloses in column 5, lines 8-21, column 6, lines 7 to 35, figure 7, 8 and respective portions of the specification of allocating resource to one or more data streams within a network having a plurality of ingress routers, a plurality of core

routers, and a plurality of egress routers, a memory, a processor coupled to a memory. Mitra further discloses that columns 7 and 8 teaches of supporting traffic in plural classes of service and states that the link capacity and the traffic intensity of each stream is admitted to the network and offered to a route. Mitra fails to teach of receiving one or more tickets into a selected core router, the tickets indicating a total load for each one of a plurality of service classes, dynamically allocating resources to a plurality of streams within each service class based on the one or more received ticket. Sitaraman teaches in column 2 lines 33-55 and figure 2, 3a, 3b and respective portions of the specification that one or more tickets are only transmitted for a particular class when the load value has changed for such service class and one or more tickets are transmitted after a predetermined amount of time. Sitaraman also teaches of a load balancer in column 4, that is able decide which of the service components will receive a service based on the load-balancing algorithm. Thus, allowing router to dynamically allocating resources to a plurality of streams within each service class based on the one or more received ticket. Thus, the tickets indicate a total number of streams being transmitted to the selected core router for each class. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Mitra to include the teachings of Sitaraman so resources may efficiently, reliably and dynamically be allocated to each class.

Allowable Subject Matter

5. Claims 24-26 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703)305-3988, (for formal communications intended for entry)

Or:

(703)305-3988 (for informal or draft communications, please label "Proposed" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The examiner can normally be reached on M-F 7:30 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 301-305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cgs
January 24, 2003